

Model Number	AS7816-64X	AS7716-32X	AS7712-32X	AS6812-32X	AS6712-32X	AS7312-54XS	AS5912-54X	AS5812-54X	AS5812-54T	AS5712-54X	AS4610-54T	AS4610-54P	AS4610-30T	AS4610-30P	
Interfaces															
100 Gigabit QSFP 28	64	32	32	—	—	6	6	—	—	—	—	—	—	—	
40 Gigabit QSFP +	—	—	—	32	32	—	—	6	6	6	—	—	—	—	
10 Gigabit SFP	—	—	—	—	—	—	48	48	—	48	4	4	4	4	
10 Gigabit Base-T	—	—	—	—	—	—	—	—	48	—	—	—	—	—	
25 Gigabit SFP28	—	—	—	—	—	48	—	—	—	—	—	—	—	—	
1 Gigabit SFP	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
1 Gigabit Base-T	—	—	—	—	—	—	—	—	—	—	48	48	24	24	
Serial Console	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
RJ-45 Management	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
USB Port	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Optional Module	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Optional Module Slots	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Memory and Spaces															
SPI Flash	16 Mbytes SPI	16 Mbytes SPI	16 Mbytes	16 Mbytes	16 Mbytes	16 Mbytes	16 Mbytes	16 Mbytes	16 Mbytes	16 Mbytes	8 Mbytes	8 Mbytes	8 Mbytes	8 Mbytes	
DRAM	16G DDR3	16G DDR4	8G X2 DDR3	8G DDR3	8G DDR3	8G X2 DDR3	8G X2 DDR3	8G DDR3	8G DDR3	8 G DDR3	2G DDR3	2G DDR3	2G DDR3	2G DDR3	
NAND Flash	—	—	—	8 Gbytes	8 Gbytes	—	—	8 Gbytes	8 Gbytes	8 Gbytes	8 Gbytes	8 Gbytes	8 Gbytes	8 Gbytes	
Option Storage	128G m.2 SSD	32G m.2 SSD	32G mSATA	Reserve mSATA	Reserve mSATA	mSATA: 32G MLC	mSATA: 32G MLC	Reserve mSATA	Reserve mSATA	Reserve mSATA	—	—	—	—	
Performance															
MAC Address Table Size	8K min. 264K max.	8K min. 136K max.	8K min. 136K max.	32K min. 288 max.	32K min. 288 max.	8K min. 136K max.	750 K	32K min. 288 max.	32K min. 288 max.	32K min. 288 max.	96 K	96 K	96 K	96 K	
Switching Capacity	12.8Tbps full duplex	6.4 Tbps full duplex	6.4 Tbps full duplex	2.56 Tbps full duplex	2.56 Tbps full duplex	3.6 Tbps full duplex	2.1 Tbps full duplex	1.44 Tbps full duplex	1.44 Tbps full duplex	1.44 Tbps full duplex	256 Gbps full duplex	256 Gbps full duplex	208 Gbps full duplex	208 Gbps full duplex	
IPv4 / IPv6 Routes	IPv4: 76 K min./128 K max. L3 hosts/extended view; IPv4/32: 32 K LPM entries with TCAM-only mode IPv6: 46 K min./64 K max. L3 hosts/extended view; IPv6/64: 16 K LPM entries with TCAM-only mode	IPv4: 8K min./72K max. host entries; 16K LPM entries with TCAM-Only mode IPv6: 4K min./36K max. host entries; IPv6/64=8K TCAM-Only mode	IPv4: 8K min./72K max. host entries; 16K LPM entries with TCAM-Only mode IPv6: 4K min./36K max. host entries; IPv6/64=8K TCAM-Only mode	IPv4: 16K min./112K max. host entries; 16K LPM entries with TCAM-only mode IPv6: 8K min./56K max. host entries; IPv6/64=8K TCAM-only mode	IPv4: 16K min./112K max. host entries; 16K LPM entries with TCAM-only mode IPv6: 8K min./56K max. host entries; IPv6/64=8K TCAM-only mode	IPv4/32: 16 K L3 LPM entries with TCAM-only mode IPv6/64: 8 K L3 LPM entries with TCAM-only mode IPv6/128: 4 K L3 LPM entries with TCAM-only mode	IPv4 forwarding database: 256K IPv6 forwarding database: 64k	IPv4: 16K min./112K max. host entries; 16K LPM entries with TCAM-only mode IPv6: 8K min./56K max. host entries; IPv6/64=8K TCAM-only mode	IPv4: 16K min./112K max. host entries; 16K LPM entries with TCAM-only mode IPv6: 8K min./56K max. host entries; IPv6/64=8K TCAM-only mode	IPv4: 16K min./112K max. host entries; 16K LPM entries with TCAM-only mode IPv6: 8K min./56K max. host entries; IPv6/64=8K TCAM-only mode	IPv4: 16K min./112K max. host entries; 16K LPM entries with TCAM-only mode IPv6: 8K min./56K max. host entries; IPv6/64=8K TCAM-only mode	96k/48k Unicast, 48k/24k Multicast	96k/48k Unicast, 48k/24k Multicast	96k/48k Unicast, 48k/24k Multicast	96k/48k Unicast, 48k/24k Multicast
Forwarding Rate	9.5 Bpps	4.7 Bpps	4.7 Bpps	1.9 Bpps	1.9 Bpps	2.6 Bpps	1.6 Bpps	1.0 Bpps	1.0 Bpps	1.0 Bpps	191 Mpps	191 Mpps	156 Mpps	156 Mpps	
Packet Buffer Size	42MBytes	16 MBytes	16 MBytes	16 MBytes	12 MBytes	22 Mbytes	Upto 8GB	16 MBytes	16 MBytes	12 MBytes	4 MBytes	4 MBytes	4 MBytes	4 MBytes	
Jumbo Frame	9 K	9 K	9 K	9 K	9 K	9 K	9 K	9 K	9 K	9 K	12 K	12 K	12 K	12 K	
Hardware															
Switch Silicon	Tomahawk II BCM56970	Tomahawk BCM56960	Tomahawk BCM56960	Trident II+ BCM56860	Trident II BCM56850	Tomahawk+ BCM56967	Broadcom Qumran 88370	Trident II+ BCM56864	Trident II+ BCM56864	Trident II BCM56854	Helix4 BCM56340	Helix4 BCM56340	Helix4 BCM56342	Helix4 BCM56342	
Central Process Unit	Intel Xeon D-1518	Intel Xeon D-1518	Intel Atom C2538	Intel Atom C2538	Intel Atom C2538	Intel Atom C2538	Intel Atom C2538	Intel Atom C2538	Intel Atom C2538	Intel Atom C2538	ARM Cortex A9	ARM Cortex A9	ARM Cortex A9	ARM Cortex A9	
Air Flow (1)	FtoB	FtoB / BtoF	FtoB / BtoF	FtoB / BtoF	FtoB / BtoF	FtoB / BtoF	FtoB / BtoF	FtoB / BtoF	FtoB / BtoF	FtoB / BtoF	Front-to-Back	Front-to-Back	Front-to-Back	Front-to-Back	
FAN Module	3 + 1	5 + 1	5 + 1	4 + 1	4 + 1	5 + 1	5 + 1	4 + 1	4 + 1	4 + 1	PSU FAN	Fixed FAN	PSU FAN	Fixed FAN	
Power Module	2	2	2	2	2	2	2	2	2	2	—	—	—	—	
Dimension (WxDxH) cm	44 x 58 x 8.8	44x51x4.4	44x51x4.4	44x51x4.4	44x51x4.4	44x51x4.4	44x54.8x4.4	44x47x4.4	44x47x4.4	44x47x4.4	44x35x4.5	44x35x4.5	44x35x4.5	44x35x4.5	
Operation Temperature	0°C ~ 45°C	0°C ~ 45°C	0°C ~ 45°C	0°C ~ 40°C	0°C ~ 40°C	0°C ~ 40°C	0°C ~ 40°C	0°C ~ 40°C	0°C ~ 40°C	0°C ~ 40°C	0°C ~ 45°C	0°C ~ 45°C	0°C ~ 45°C	0°C ~ 45°C	
Typical Power Consumption	—	500 W	500 W	227 W	227 W	—	513 W	282 W	282 W	282 W	117 W	117 W	100 W	100 W	
Open Software															
ONIE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Cumulus Linux	Future Release	—	Yes	Yes	Yes	Future Release	—	Yes	Yes	Yes	Yes	Yes	—	—	
Big Monitor Fabric	—	—	Yes	Yes	Yes	—	—	Yes	Yes	Yes	—	—	—	—	
Big Cloud Fabric	—	—	Yes	Yes	Yes	—	—	Yes	Yes	Yes	—	—	—	—	
Open Network Linux (ONL)	Yes	Yes	Yes	Yes	Yes	—	Yes	Yes	Yes	Yes	Yes	Yes	—	—	
PicOS	—	—	Yes	—	Yes	Yes	—	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
IPInfusion OcnOS	—	—	Yes	—	—	—	Yes	Yes	—	—	—	—	—	—	
Pluribus	—	Yes	—	—	Yes	—	—	—	Yes	Yes	—	—	—	—	
SnapRoute	—	Yes	Yes	Yes	Yes	—	—	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Netscout	—	—	—	—	—	—	—	Yes	—	—	—	—	—	—	
SONiC	—	—	—	—	—	—	—	—	—	Yes	—	—	—	—	
IXIA Vision EdgeOS	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Cisco-ISO-XR	Yes	—	—	—	—	—	—	—	—	—	—	—	—	—	
IEEE Power Over Ethernet															
PoE Standard	—	—	—	—	—	—	—	—	—	—	—	802.3af / at	—	802.3af / at	
Power Budget	—	—	—	—	—	—	—	—	—	—	—	1,500 W	—	800W	
Ultra PoE (60 W)	—	—	—	—	—	—	—	—	—	—	—	8 Ports	—	8 Ports	
Certification															
OCP Status	—	—	Accepted	—	Accepted	—	Accepted	—	—	First Accepted	Accepted	Accepted	Accepted	Accepted	

(1) FtoB :
(*) Future

	BigSwitch BCF	BigSwitch BMF	Cumulus Linux	IPInfusion OcNOS	Open Network Linux	OpenSwitch	PicOS	Pluribus Netvisor
Research and Education								
OpenFlow	Yes	Yes	–	Yes	–	–	Yes	–
OF-DPA	–	–	–	–	Yes	–	–	–
OpenNSL	–	–	–	–	Yes	–	–	–
NETCONF	–	–	–	Yes	–	Yes	Yes	–
OVSDB	–	–	Yes	–	–	Yes	Yes	–
Enterprises Features								
OpenStack Integration	Yes	Yes	Yes	–	–	–	Yes	–
OpenStack DevOps	Yes	Yes	Yes	–	–	–	Yes	–
Automation Integration	Yes	Yes	Yes	Yes	–	–	Yes	–
Telecom Features								
MPLS VPN	–	–	–	Yes	–	–	–	–
O.A.M	–	–	–	Yes	–	–	–	–
Bidirectional Forwarding Detection	Yes	–	Yes	Yes	–	–	Yes	–